

Abstract

An optical fiber cable assembly comprising an optical fiber slidably enclosed within a hollow tubing, both the fiber and the tubing having corresponding first and second ends. The cable is terminated with the first and second ends of the tubing and the fiber constrained with respect to each other such that fiber and the tubing are approximately the same length when the cable is at a first temperature. The tubing is made of a material which contracts more than the optical fiber when the cable is exposed to temperatures below the first temperature, such that the fiber is longer than the tubing and excess fiber length is formed. An intermediate portion of the tubing permits the excess fiber length to accumulate without bending in a radius smaller than a minimum bend radius.

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